

FIG. 1
PRIOR ART

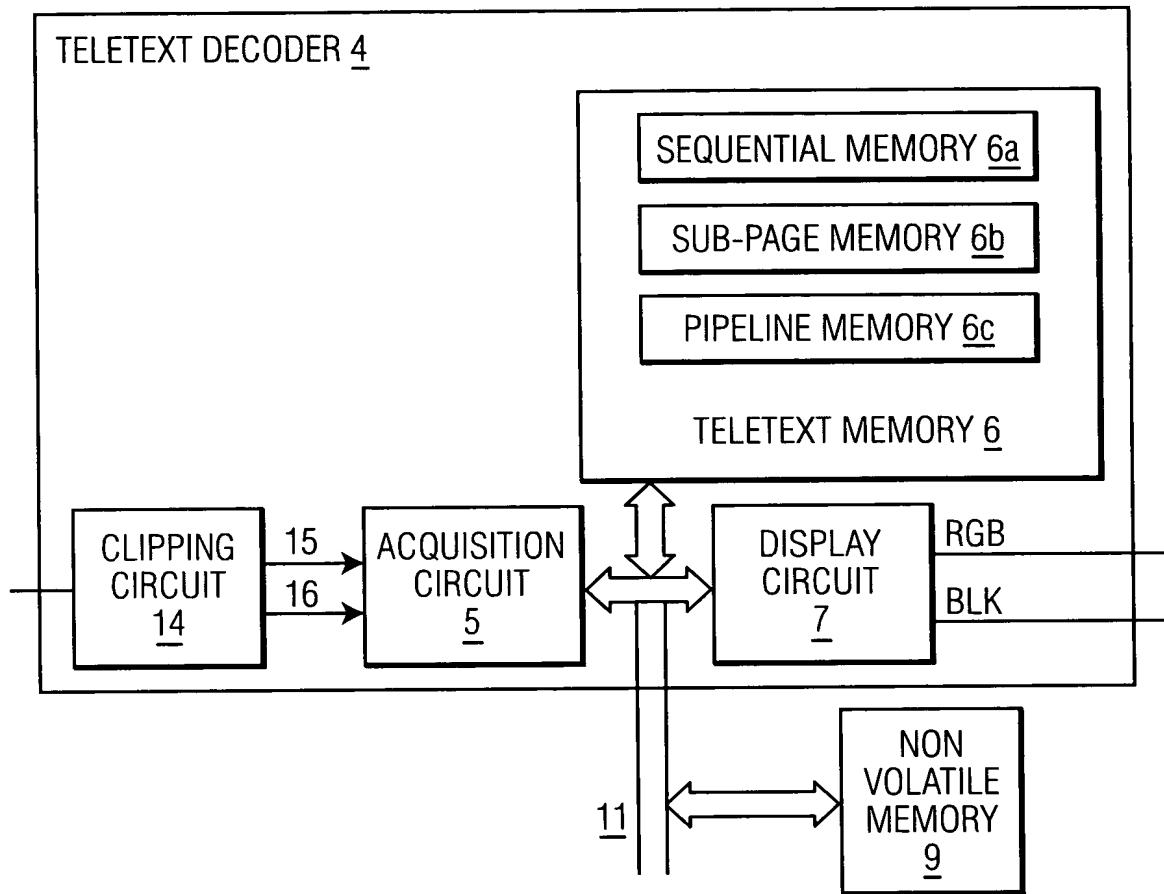


FIG. 2

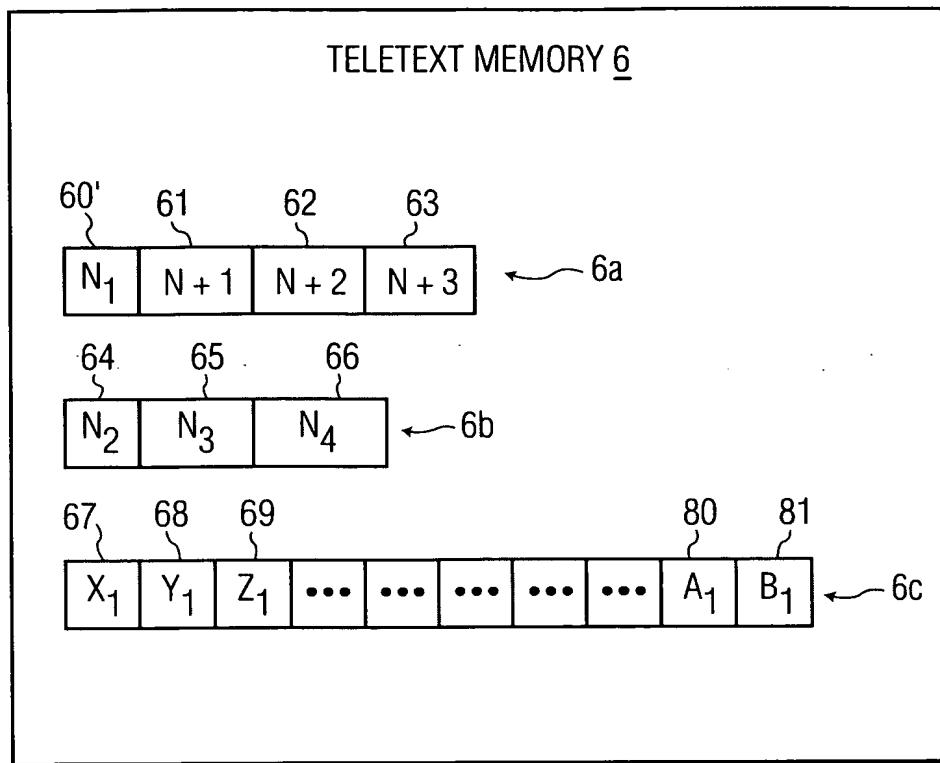


FIG. 3

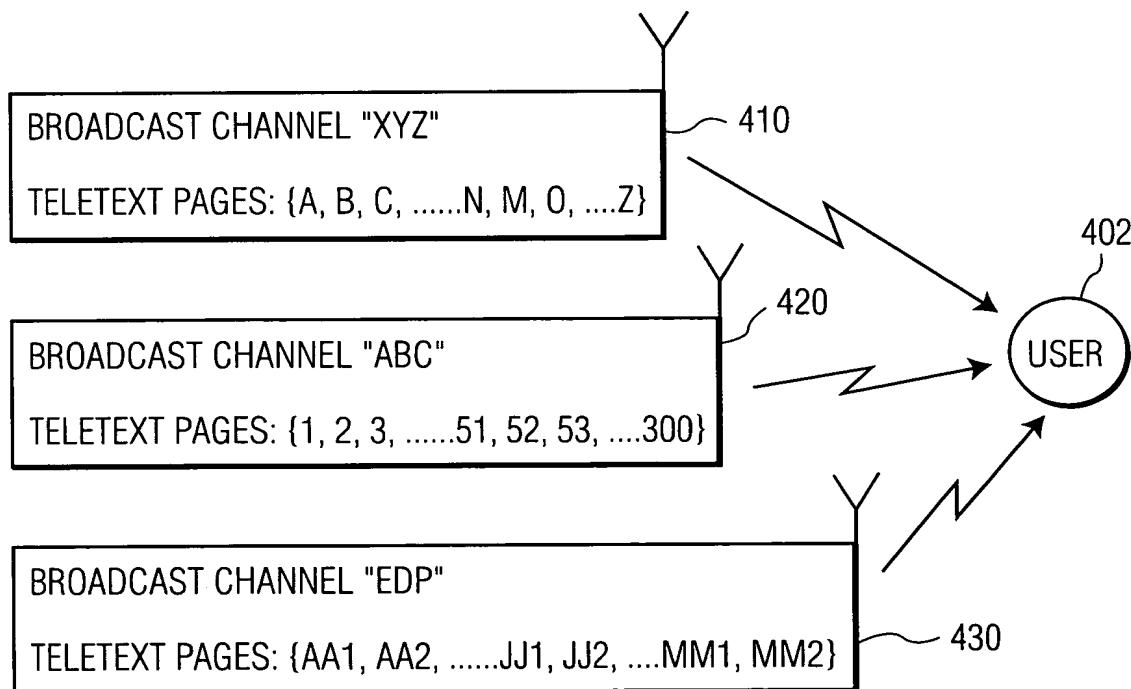


FIG. 4

PAGE	SUB-PAGE
A	A1, A2
B	B1
C	C1, C2, C3, C4
D	D1
:	
:	
:	
:	
I	I1, I2, I3
J	J1, J2
K	K1
L	L1, L2, L3, L4, L5
M	
N	N1, N2, N3, N4
:	
P	P1
Q	Q1, Q2
X	X1
Y	Y1, Y2, Y3
Z	Z1

FIG. 5

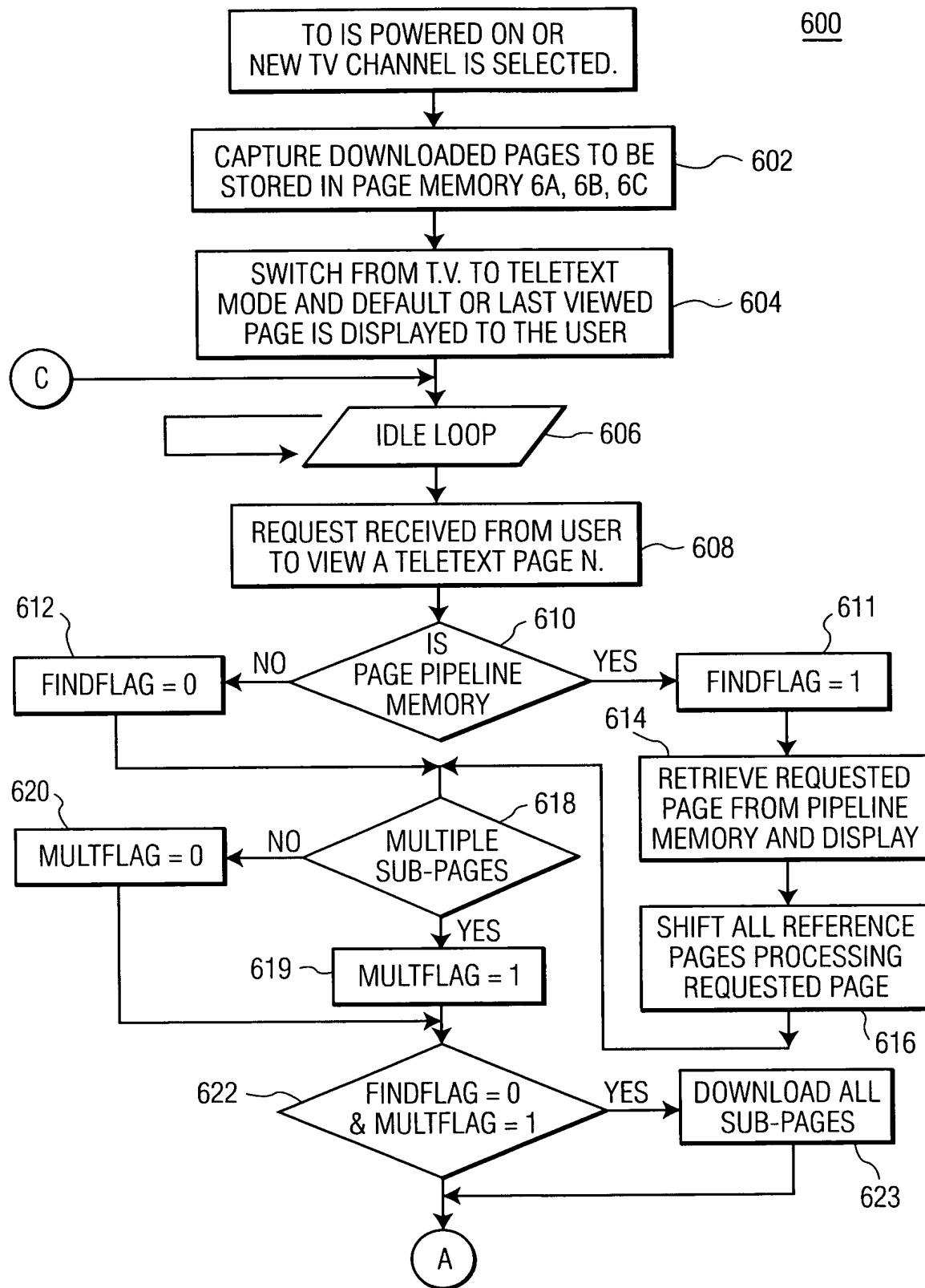


FIG. 6A

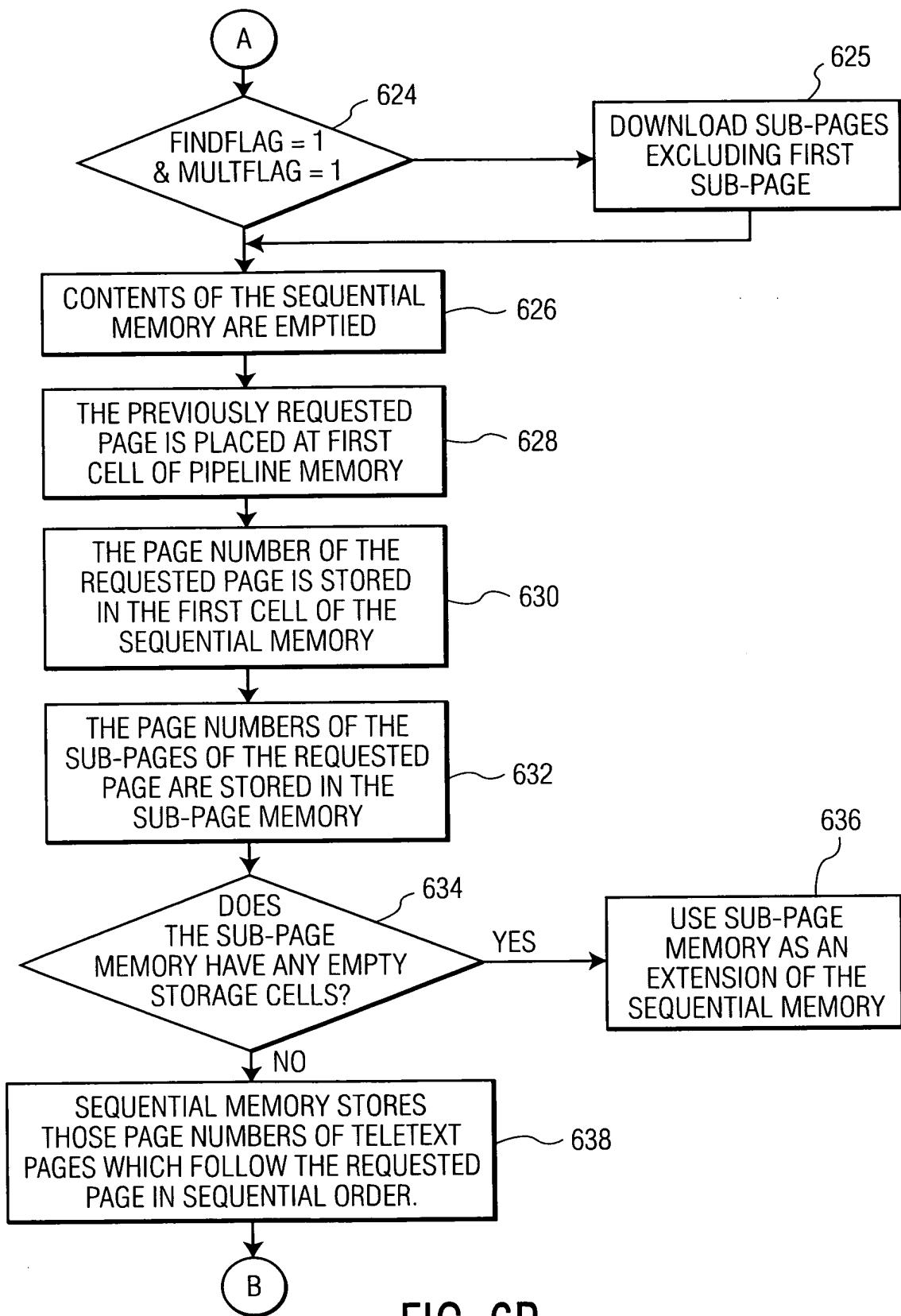


FIG. 6B

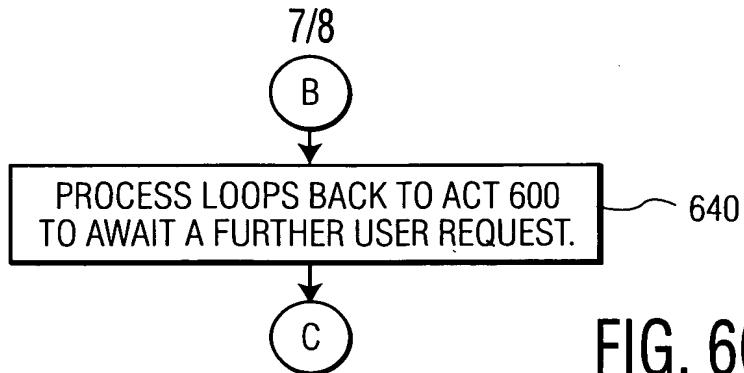


FIG. 6C

* END USER IS CURRENTLY VIEWING N_1

SEQUENTIAL:

N_1	$N + 1$	$N + 2$	$N + 3$
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6a

SUB-PAGES ARE DOWNLOADED WHILE END USER IS VIEWING N_1 :

SUB-PAGES:

N_2	N_3	N_4
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6b

PIPELINE STORES LAST 13 PREVIOUSLY VIEWED PAGES:

PIPELINE:

X_1	Y_1	Z_1	A_1	B_1
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6c
6

FIG. 7A

* END USER DECIDES TO CHANGE VIEW FROM PAGE N TO PAGE Z (Z PRESENT IN PIPE)

SEQUENTIAL:

Z_1	$Z + 1$	$Z + 2$	$Z + 3$
-------	---------	---------	---------

6a

SUB-PAGES ARE DOWNLOADED FROM BROADCAST SIGNAL WHILE Z_1 IS EXTRACTED FROM PIPE:

SUB-PAGES:

Z_2	Z_3	Z_4
-------	-------	-------

6b

REFERENCE IN PIPE TO Z_1 IS REMOVED AND X_1 AND Y_1 ARE SHIFTED TO RIGHT ONE PLACE:

PIPELINE:

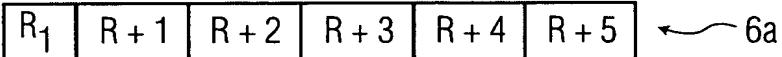
N_1	X_1	Y_1	A_1	B_1
-------	-------	-------	-----	-----	-----	-----	-----	-----	-----	-----	-------	-------

6c
6

FIG. 7B

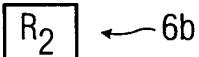
* END USER DECIDES TO CHANGE VIEW FROM PAGE Z TO PAGE R (R NOT PRESENT IN PIPE)

SEQUENTIAL:



R CONSISTS OF TWO SUB-PAGES (R₁, R₂), SECOND SUB-PAGE R2 STORED IN SUB-PAGE MEMORY.

SUB-PAGES:



Z₁ PLACED INTO THE BEGINNING OF THE PIPE, EXISTING ENTRIES MOVE ONE POSITION TO RIGHT

PIPELINE:

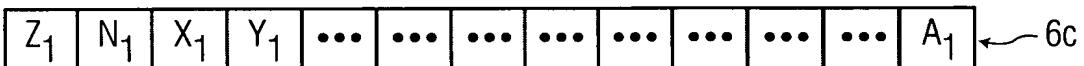
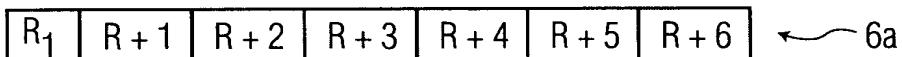


FIG. 7C

* END USER DECIDES TO CHANGE TV CHANNELS (R IN NEW CHANNEL DOES NOT CONTAIN SUB-PAGES)

SEQUENTIAL:



SUB-PAGES:



PIPELINE:

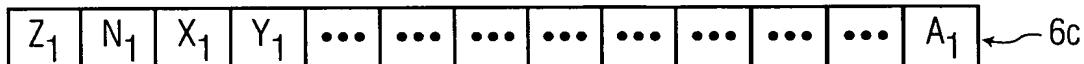


FIG. 7D